

**Testimony of
Clifford V. Rossi
Professor-of-the-Practice and Executive-in-Residence
Robert H. Smith School of Business
University of Maryland
And
Chief Economist
Radian Group, Inc.
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**“The Future of Housing in America: Oversight of the Federal Housing Administration -
Part II”**

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Introduction

Chairman Luetkemeyer, Ranking Member Cleaver, and Members of the Committee, thank you for the opportunity to testify on the financial condition of the Federal Housing Administration's (FHA) Mutual Mortgage Insurance Fund (MMIF, or the Fund) and the role of FHA in the marketplace. I am currently a professor-of-the-practice and executive-in-residence at the Robert H. Smith School of Business at the University of Maryland, as well as chief economist for Radian Group, Inc. Prior to my roles at the University of Maryland and Radian, I spent more than 20 years managing or leading risk management functions at major commercial financial institutions, Fannie Mae and Freddie Mac, a bank regulatory agency and the U.S. Department of the Treasury.

My testimony today focuses on three areas: (1) the problems associated with assessing the financial condition of the MMIF, (2) the effect of the FHA's recent decision to lower annual mortgage insurance premiums (MIPs), and (3) areas for reforming FHA. I also offer several recommendations that would secure the financial viability of FHA while also clarifying and sustaining its role in the housing finance system. These include:

- Application of area median income targets to better define FHA's mission;
- Development of risk-sharing arrangements;
- Harmonizing the conflicting definitions of a "Qualified Mortgage";
- Tethering FHA's risk model assumptions to line up to the GSEs in order to have consistent comparisons.

Unquestionably, FHA has served a critical role in our nation's housing market by providing affordable credit to over 40 million first-time homebuyers and other borrowers with limited resources who otherwise would have difficulty obtaining access to credit through more traditional private-sector sources. At the same time, FHA, in its capacity as public steward of the \$1 trillion-plus MMIF, has responsibility for maintaining the financial integrity of that fund which, according to recent actuarial analyses, has lately experienced considerable stress. Also, FHA should not take actions to displace the private mortgage insurance industry, which is serving the housing market well, and is willing and able to do even more.

The Problems with Assessing the Financial Condition of the MMIF: Actuarial Model Flaws.

According to the latest actuarial analysis, the MMIF (including Home Equity Conversion Mortgages) remains in an extremely weak position. By statute, the FHA is required to maintain a ratio of capital to amortized insurance-in-force of at least two percent.¹ Each year, an actuarial analysis is performed to determine the economic value of the MMIF in relation to amortized insurance-in-force. Since 2009, the MMIF has not met this required ratio. In 2013, the MMIF required a mandatory appropriation from the U.S. Treasury of approximately \$1.7 billion, after the determination that the Fund did not have sufficient reserves to pay all expected losses.²

¹ Cranston-Gonzalez National Affordable Housing Act of 1990.

² Written Testimony of Carol Galante, Assistant Secretary for Housing/FHA Commissioner, U.S. Department of Housing and Urban Development (HUD), Hearing before the House of Representatives Committee on Financial Services, October 29, 2013, p.2.

Today that capital ratio is at only .41 percent.³ To put that deficiency in perspective, if the MMIF were a commercial banking enterprise, under Prompt Corrective Action (PCA) requirements, it would be taken into receivership by the FDIC.⁴

The 2014 MMIF actuarial report estimates that the Fund will reach the two percent capital reserve ratio threshold by 2016. To get there, economic value is projected to increase from \$4.8 billion in 2014 to \$23.4 billion in 2016, a nearly 400 percent increase in two years.⁵ However, that projection assumes that the data, forecasts, assumptions and models supporting the actuarial analysis are empirically supportable. One of the most pernicious risks financial institutions face is **model risk**. During the years leading up to the financial crisis, many Wall Street firms and banks fell under the spell of highly complex models for risk and valuation analysis. These models, in many instances, broke down and materially underestimated credit risk as key assumptions and relationships between default and risk factors were, ultimately, flawed. The FHA's actuarial model is no less susceptible to these issues and it is worth describing how a number of features of the actuarial model throw the estimates of economic value and insurance-in-force into significant doubt.

I am particularly concerned about the accuracy of the FHA's models when viewed in light of the fact that they are at least partially relied upon for providing the FHA with confidence in its current pricing policy decisions.

The actuarial model used to value the MMIF is acceptable in theory, but it is extraordinarily complex. Importantly, its underlying assumptions are cause for concern and further discussion. The model incorporates numerous statistical models describing how FHA loans transition from one performance state, such as current, to another state, such as delinquent or prepayment over the life of a mortgage. In addition, models are developed to predict the severity of loss once a loan defaults. Other models are developed to forecast FHA mortgage volume and include projections of future FHA loans' credit-risk profile. These models are developed using loan-level FHA data that feature a variety of borrower, loan, property, and macroeconomic factors, among others. Important macroeconomic factors that explain a default event include changes in home price and unemployment rates. Interest rates are a key driver in the model for predicting prepayments. A number of these models are interdependent, thus adding to their complexity, and are subject to considerable volatility.

Because individual risk factors can have material effects on the model's predictions, it is crucial to ensure these models are performing in line with *actual outcomes*. The problem is that no validation of model accuracy is provided in the FHA's actuarial report. The fact that the report provides sensitivity analysis of economic value outcomes across a range of simulated macroeconomic paths does not substitute for a validation of the models underlying the analysis. This is a critical omission in the report as there is no way of determining the accuracy of these individual models.

³ Annual Report to Congress Regarding the Financial Status of the FHA MMIF, Fiscal Year 2014, HUD, November 17, 2014, p.2.

⁴ See 12 U.S.C.1831o.

⁵ Annual Report to Congress Regarding the Financial Status of the FHA MMIF, Fiscal Year 2014, HUD, November 17, 2014, p.35.

One model that is critical to the macroeconomic scenarios underlying the actuarial results is the house pricing model. The diagnostic statistic (adjusted R^2) reported in the study that provides an indication of the model's ability to predict national home price changes was .654.⁶ In many statistical applications, an adjusted R^2 of .654 should not be viewed as providing a strong prediction of the underlying variable of interest (home price).⁷

For years, bank regulators have established guidelines for commercial banks to follow in the development of risk and valuation models. Models that are not validated in terms of their predictive quality against *actual experience* raise serious concerns from a regulatory oversight perspective. Specifically, in order for the FHA actuarial results to be considered robust and valid, the actuarial model developers need to demonstrate that each of the underlying models used in projecting MMIF economic value and insurance-in-force is predictive on a sample of loans *different* from those used to develop the models. In other words, standard testing of the model's accuracy needs to include examination of each model on its own merits.

Another problem is illustrated by flaws in the mortgage volume model used to project future FHA loan volume. This model has significant consequences for the actuarial results. The model depends on projections of the credit risk profile (based on borrower Fair Isaac Corporation (FICO) score and loan-to-value (LTV) ratio) of future FHA loans. Unfortunately, these figures should be, but are not, supplied by an actuary or some other *independent* source. Instead they come from the Department of Housing and Urban Development (HUD) itself. Specifically, the actuarial report states;

These projected volumes are allocated among the three loan-product types (only for fully underwritten loans) following their distribution in the most recent endorsements over FY 2013Q3 to FY 2014Q2. HUD provided detailed projections of the compositions of these future books of business by LTV and credit score. Exhibits C-2 and C-3 present HUD's projected composition for for-purchase and fully underwritten refinance mortgages.⁸

In my opinion, this calls into question the independence of a key piece of information, as the credit risk profile of future books of business for FHA will certainly drive the actuarial model's results.

The approach taken in the actuarial model for generating an estimate of the economic value of the MMIF requires running each of these models of borrower default behavior through numerous scenarios (or paths) of house prices, interest rates, and unemployment rates. This

⁶ Actuarial Review of the Federal Housing Administration Mutual Mortgage Insurance Fund Forward Loans for Fiscal Year 2014, Integrated Financial Engineering, Inc., November 17, 2014, p. G-9.

⁷ Note that R^2 ranges between 0 (no predictive power) and 1 (perfectly predictive, or that the model explains 100% of the variation in a dependent variable such as home price change due to the explanatory factors in the model). According to Financial Accounting Standard 133, for hedge accounting, an effective hedge is one where the unhedged risk is reduced from the hedge by at least 80%. The R-square or coefficient of determination provides a statistical measure of that degree of effectiveness. Thus, an R-square below 80% would thus not qualify as an effective hedge. See Rossi, Clifford. *A Risk Professional's Survival Guide: Applied Best Practices in Risk Management*, Wiley, 2014. Pg. 354.

⁸ Actuarial Review of the FHA MMIF Forward Loans for Fiscal Year 2014, Integrated Financial Engineering, Inc., November 17, 2014, p. C-1.

process of simulating various possible macroeconomic outcomes that then drive different default outcomes is a standard analytical practice: a “Monte Carlo simulation”. However, generating paths that are representative of future outcomes is reliant upon expert judgment in addition to good analytical practices applied to the data. The statistical models used to generate the simulated macroeconomic paths for projecting MMIF economic value are subject to considerable sensitivity. In other words, the simulated paths could produce outcomes that are wildly different depending on how clustered together or not the simulated economic paths are.

Moreover, the *number* of paths used to generate the actuarial model results is far too small to provide a robust understanding of the worst default outcomes that could possibly befall the MMIF over time. In modeling a portfolio of loans over time, the simulation generates a distribution of default outcomes, some better than the average and others worse than average. From an insurance perspective, understanding those outcomes at the far end of the distribution that result in credit losses under stress is essential to generating robust assessments of inherent credit risk in the portfolio. Generating 100 paths does not provide statistically reliable estimates of stress losses: for example, there is only one path that would designate the 99th-percentile worst loss. Many more paths would be needed in order to gain a more accurate view of the credit losses at the far end of the credit distribution. To get some perspective on this, consider that a recent study of the FHA MMIF by the Congressional Budget Office using a similar Monte Carlo simulation approach generated 1,000 economic paths in order to “account for uncertainty in the estimated parameters.”⁹ By relying on only 100 simulated economic paths, the FHA actuarial model does not adequately capture stress losses that would influence the magnitude of losses used to project economic value of the MMIF.

Another area that requires closer scrutiny is the data quality used to estimate the various models. The actuarial study clearly states that while the development team reviewed the data for integrity and consistency, they did not audit the data for accuracy.¹⁰ In order to gain more comfort with the results, the actual data used to generate the actuarial model results should be independently audited.

The MMIF actuarial model is an appropriate methodology for analyzing the soundness of the MMIF. However, my testimony has identified a number of potential flaws in the model that could materially affect the results. Models are only representations of borrower and market behavior and so their limitations should be well understood before being used to make public policy decisions.

Impact of The FHA’s Recent Decision to Lower MIP’s

Beyond the model issues raised above, there are other significant issues that adversely affect the estimates produced by the actuarial model. One of these is the reduction in annual MIP premiums from 1.35 percent to .85 percent. The actuarial report did *not* take into account this change, which would clearly lower the revenues needed to build the capital reserve to its

⁹“Modeling the Budgetary Costs of FHA’s Single Family Mortgage Insurance,” Francesca Castelli, Damien Moore, Gabriel Ehrlich, Jeffrey Perry, September 2014, Working Paper 2014-05, Congressional Budget Office, Washington, D.C., p.25.

¹⁰ Actuarial Review of the FHA MMIF Forward Loans for Fiscal Year 2014, Integrated Financial Engineering, Inc., November 17, 2014, p. iv.

statutory threshold of two percent. This would *extend the timing* of when the Fund would be in compliance with the statutory threshold.

FHA sought to justify its reduction in premiums by saying that they far exceeded the amounts necessary to cover their newly insured mortgages.¹¹ But this *ignores* the higher expected losses on earlier insured loans. This is why comparing lifetime premiums on current borrowers to their projected average lifetime losses is not a meaningful comparison for a heterogeneous insurance portfolio comprised of a variety of borrower risk profiles over book years subject to different economic conditions. Moreover, comparing premiums to average losses overlooks the fact that even good book years and borrowers face some likelihood of experiencing a stress event, which must be taken into account.

In addition, beyond lengthening the time the MMIF finally reaches the two percent capital reserve ratio, lowering annual MIPs directly impedes the ability for private capital to support the housing market, which has been a stated objective of the Administration and market participants since the financial crisis. For example, in the 2014 Annual Report to Congress on the state of the MMIF, HUD explicitly stated that one of its missions was to reduce the FHA's footprint in the market and allow private capital to return.¹² With an average LTV of 94 percent for all FHA-insured loans endorsed in 2014, the agency effectively competes against high LTV conventional conforming loans insured by Fannie Mae and Freddie Mac.¹³ Any mortgages insured by Fannie and Freddie with LTVs above 80 percent are required to carry private mortgage insurance. It is in this segment of the mortgage market that FHA's premiums introduce distortions by driving more loans to FHA when premiums charged for certain risk attributes such as FICO and LTV are lower than those charged by private mortgage insurers.

Lenders frequently perform what's called a "best execution" analysis for determining where to place a mortgage that they originate and this decision is based on which disposition (e.g., FHA or GSE-MI, or lender portfolio) generates the highest price among alternatives. The premiums charged by the GSEs, FHA and private mortgage insurers are critical inputs in this comparison. If guarantee fees charged by the GSEs and premiums charged by private mortgage insurance companies remain the same, *ceteris paribus*, then a reduction of 50 bps in the FHA annual premium could be expected to generally drive high LTV mortgages at the margin from the GSEs (and private mortgage insurance) toward FHA.

Notably, my recent research provides evidence that FHA/GSE(with private mortgage insurance) pricing differentials lead to FHA as the "best execution" (or more economical) for the highest LTV and lower credit-quality mortgages. With to the FHA premium reduction, borrowers

¹¹ Testimony of Secretary Castro, "Prior to the decision to lower the annual premium, FHA was collecting almost four times the amount needed to cover the risk posed by its newest borrowers. According to the independent actuary, for new loans insured in Fiscal Year (FY) 2014, FHA will collect an average \$17,000 in fees from borrowers over the lives of the loans. FHA expects that the average loss from borrowers for these loans will be \$4,700." Written Testimony of Julián Castro Secretary of HUD, Hearing before the House of Representatives Committee on Financial Services Wednesday, February 11, 2015.

¹² Annual Report to Congress Regarding the Financial Status of the FHA MMIF, Fiscal Year 2014, HUD, November 17, 2014, p.7.

¹³ *Id.* p.15.

with a 5 percent down payment and a FICO score of 680 or above are at risk of going to FHA when previously, private mortgage insurance was a good option for them. My estimate is that approximately eight percent of private mortgage insurance is at risk of being poached by FHA, if pricing/execution is the only factor in the decision. These FHA price reductions artificially wind up tilting market share toward the FHA and away from the private sector, exactly in contradiction to one of the stated objectives of the FHA mentioned earlier.

To better understand how mortgage insurance pricing between FHA, as a governmental entity, and private mortgage insurance can introduce market distortions, consider the following differences in how each prices its risk. A private insurer determines a fair premium to charge borrowers that covers its expected losses, capital cost, and administrative expenses, as well as a fair rate of return to its shareholders.¹⁴ However, FHA is not bound by the same strictures. Instead, FHA has wide discretion in pricing its premiums, subject to the statutory cap on annual premiums, that should take into account expected losses, and administrative costs. Unlike its private-sector counterparts, FHA is not bound to price for the cost of their capital. This pricing advantage is exacerbated by other policy considerations at play in setting FHA premiums, namely the agency's mission to provide access to mortgages for first-time homebuyers and other segments of the market that tend to be associated with low - or moderate-income homebuyers, as we just saw in the stated reason for the FHA's premium reduction. For FHA, these policy factors lead to pricing outcomes that are not consistent with actuarial pricing *per se*, because there is a determination that from a policy perspective that the market is better served by providing a federal subsidy to expand credit in housing. That is a matter for public policymakers. However, this increases the advantage that FHA has as a federally subsidized insurer over private insurers in the market.

Further exacerbating the FHA's advantage over private mortgage insurance are differential capital requirements. Commercial banks and private mortgage insurance companies are subject to regulatory capital standards that are significantly above the two percent level required by the FHA for mortgage assets. Currently, private mortgage insurance companies operate at a minimum 25-to-1 risk-to-capital ratio, which relates to a four percent capital-to-asset ratio. However, risk-based capital standards under consideration by the Federal Housing Finance Agency (FHFA) would impose much higher capital ratios than four percent.¹⁵ While imposing a set of risk-based capital standards on the private mortgage insurance industry is prudent, it underscores an important difference between private and public insurers that in a market where both compete for business, private capital is at a disadvantage. Reducing FHA's annual MIP exacerbates this situation, while further eroding the capital resources needed by the MMIF to achieve the two percent statutory capital reserve ratio.

In addition to increasing the FHA's footprint in the market, the recent premium reduction is likely to set off a refinancing wave. It is estimated that 2.4 million, or nearly one-third of all FHA borrowers, would have an incentive to refinance their mortgages due to lower MIP pricing.¹⁶ While this clearly would benefit borrowers by reducing monthly payments, it also has

¹⁴ To gain a better perspective on the mechanics of guarantee fee pricing for a GSE, refer to an analysis by Mark Zandi and Cristian deRitis, "Evaluating Corker-Warner," Moody's Analytics, July 2013, pp. 4-5.

¹⁵ Draft Private Mortgage Insurance Eligibility Requirements, FHFA, July 2014.

¹⁶ "More than one in three FHA borrowers could save money by refinancing today," Karan Kaul, Laurie Goodman and Jun Zhu, Urban Institute, February 16th, 2015

an impact on the prepayment speeds of the mortgage-backed securities that they are packaged into by Ginnie Mae. Investors in Ginnie Mae's securities have forecast typical inflows from the securities for an expected period of time, but this unexpected refinance wave could rapidly and dramatically increase prepayments, lowering the value of the Ginnie Mae securities. Ginnie Mae securities become de-valued because investors cannot count on the steady income stream of principal and interest for the same period of time they forecast when they purchased the security. The lost interest income makes Ginnie Mae securities much less valuable. The effect is that suddenly de-valued Ginnie Mae securities wreak havoc on institutional investors, like pension funds and life insurance companies that invest in Ginnie Mae securities, because they can no longer rely upon the predictable payment schedule.

Contributing Factors to FHA's MMIF Challenges

The question for policymakers, is what changes should be made to FHA that provide the agency with the best opportunity to fulfill its critical mission to housing while also protecting the taxpayer? Before proceeding to a set of specific recommendations, it is important to highlight a number of contributing factors to FHA's current financial situation and their implications for markets, borrowers, and the MMIF today.

Mission Conflict

The fact that the MMIF's capital reserve ratio stands at .41 percent is evidence that FHA's social mission may, at times, overshadow its financial mission. We now realize that a focus on market share without a healthy appreciation for risk was a recipe for disaster, and the lessons learned from this experience are as important to FHA, Fannie Mae, and Freddie Mac as they are to the private sector. At the heart of this issue are a host of governance, operational and oversight issues that explain excessive risks borne by FHA over the years.

These twin objectives for FHA may be in conflict. For example, in 2010, FHA imposed a minimum borrower credit score (FICO) of 580 as a way of improving the credit quality of new business. Up to that point, the lack of minimal standards on borrower creditworthiness clearly helped FHA expand its reach to borrowers with especially poor credit while significantly raising the risk to the MMIF. The mortgage industry has understood for years that borrowers with such marginal credit histories tend to have a likelihood of defaulting on their mortgages that may be as much as five to eight times higher than that of borrowers with FICO scores of 700 and above.

Moreover, FHA can adjust MIPs to affect desired public policy outcomes to serve its perceived social mission. For example, by holding down MIPs below what otherwise would be actuarially sound levels, it reduces costs to homeowners while passing them onto the MMIF (and ultimately, the taxpayer) through higher credit losses that manifest over time. Such policies allow FHA to serve a larger segment of the borrower population, but expose the MMIF to much higher risk long-term. Striking the right balance between FHA's social mission and its duties to maintain the MMIF's financial integrity is complicated, and made more difficult by a lack of clarity in defining who its target borrowers are. Such an exercise is about determining what segments of society merit public support, as well as about establishing a clear risk appetite that aligns to these goals.

Lack of Mission Clarity: Income Limits Needed

Turning to the social policy aspect of FHA programs, FHA's traditional role of serving low- and moderate-income borrowers has expanded into higher-income borrower segments that have access to private sources of insurance. This occurred because of a rapid increase in the upper limit on the size of mortgages FHA was allowed to, and subsequently pursued, insuring. Not surprisingly, it is borrowers with higher incomes who can sustain and/or afford the larger mortgages. Reliance on loan limits to determine FHA borrower eligibility, rather than on income measures, expands federal subsidies to borrower classes that do not need the federal subsidy.

To underscore the policy impact of current FHA loan limits, consider the following example: a borrower in the San Francisco Metropolitan Statistical Area can obtain a loan amount of \$625,500. Given prevailing mortgage rates for a fixed-rate 30-year amortizing mortgage and including associated taxes and insurance on a \$700,000 property, the monthly mortgage payment would be about \$3,974. If the loan met the Consumer Financial Protection Bureau's (CFPB) Qualified Mortgage rules, the borrower would need to have a monthly income of approximately \$9,242, or an annual income of about \$110,900. The income requirements would be even higher if this borrower carried nonmortgage debt obligations, such as student loans. This income level far exceeds HUD's median family income estimate for California of \$68,100.¹⁷ While FHA continues to serve many low- and moderate-income borrowers today, there clearly is a need to revisit the social and economic rationale for current FHA loan limits, as well as consideration for implementing income-based limits.

Underinvestment in Risk Management

One manifestation of the heightened focus of FHA on its social mission to the detriment of the MMIF is the historical underinvestment in risk management resources, personnel, and technologies essential to managing a fund of such scale as the MMIF. In a study by the Government Accountability Office (GAO) conducted in 2011, a number of critical deficiencies in FHA's ability to effectively manage risks were identified.¹⁸ These weaknesses resulted in the FHA absorbing excessive risks that it had little ability to identify before the risks had already been booked.

To put FHA's risk infrastructure into perspective, if the agency were subject to regulatory oversight by one of the bank supervisory agencies, it is likely that FHA would be subject to a number of examination findings on its risk-management activities. In assessing an institution's risk infrastructure, bank examiners focus on a number of critical areas, including the quality of an institution's governance structure for risk management; the adequacy and competence of risk staff; and quality of reporting, policies and procedures, data management and analytic capabilities, among others. A widely held perspective among bank regulators is that an institution's risk infrastructure must grow ahead of its lending activity. Without such attention to

¹⁷ U. S. HUD. Estimated Median Family Incomes for Fiscal Year 2014. NOTICE PDR-2014-01. FY 2014 Median Family Incomes for States, Metropolitan and Nonmetropolitan Portions of States.

¹⁸ These included staffing shortages in key risk management areas, a lack of adequate systems and capabilities to conduct proper surveillance of emerging risks and threats to the MMIF, delays in obtaining much needed resources and high turnover among key positions. Such findings are the hallmark of an organization not well-equipped to quickly identify, measure and manage risks. *See*. Government Accountability Office, Federal Housing Administration: Improvements Needed in Risk Assessment and Human Capital Management, GAO-12-15: Published: Nov 7, 2011. Publicly Released: Nov 7, 2011.

the quality of the risk-management process, an institution or agency in this case would be severely handicapped in an accelerated growth scenario, as FHA has experienced in recent years.

In addition, FHA has historically underinvested in robust portfolio surveillance capabilities. Once a loan has been originated, portfolio lenders retaining the asset on balance sheet typically engage in a number of activities to track the loan's default and loss performance against modeled outcomes over time and report material changes in defaults and losses to senior management. Changes in the economy, housing market, and individual borrower behavior must be closely monitored. Such early-warning mechanisms serve as the basis for effective remediation efforts to avoid default and adjust pricing, credit, and collateral policies, as well as trigger portfolio-level risk-mitigation activities. These capabilities are core to any large portfolio lender's risk function and are staffed with highly skilled risk professionals trained in advanced credit portfolio valuation techniques. Such techniques provide firms with an ability to more accurately assess and price credit risk by allowing combinations of risk attributes to be examined collectively across multiple economic scenarios over time.

Recommended Reforms to FHA

Ensuring the long-term viability of the MMIF while clarifying FHA's mission can be achieved by implementing a number of reforms aimed at addressing the contributing factors to the current challenges facing FHA. These reforms start with clarifying the role of FHA vis-a-vis other market participants, restructuring FHA to provide the agency with the flexibility and tools to manage its risks, strengthening its risk-management capabilities, and development of new risk-sharing and pricing frameworks to limit risk exposure and accurately price risk.

Provide Mission Clarity: Income Limits

First and foremost, FHA needs to get back to its historical roots of focusing on providing access to mortgage credit for low- and moderate-income borrowers. The size of the market should ideally be no greater than FHA's historical share of 10-15 percent. For years, median income targets have been used in various affordable housing programs. For example, the Federal Home Loan Banks' Affordable Housing Program provides subsidies to borrowers with median incomes at or below 80 percent of area median income. Likewise, affordable housing goals for both GSEs use the same 80 percent threshold of area median income in defining targets for Fannie Mae and Freddie Mac. FHA should adopt an area median income target to determine program eligibility and phase out the use of area-based loan limits. In conjunction with establishing income-based eligibility requirements, FHA should strengthen its requirements to ensure all eligible borrowers have the best chance of staying in their homes. This comes down to raising the bar on collateral, credit, and capacity criteria to repay the mortgage; namely, the "three Cs" of underwriting.

Allow FHA to Engage in Risk-Sharing Arrangements

Unlike many other holders of credit risk, FHA has no formal mechanism to transfer credit risk to the capital markets. As a result, FHA winds up holding 100 percent of the credit risk even though it may be economically advantageous to engage in risk-sharing arrangements with various market participants. For instance, both GSEs are required to have suitable credit enhancement for loans above 80 percent LTV. Private mortgage insurers provide first-loss

coverage, depending on the LTV, between 25-35 percent. Such arrangements allow the GSEs to distribute risk across other counterparties rather than concentrate risk on their balance sheets.

Credit enhancements are also effective for reshaping the risk profile of the existing insured book. For example, large portfolio lenders and the GSEs from time to time will enter into reinsurance contracts with approved counterparties to sell portions of credit risk in their loan portfolios. Best practice portfolio risk-management exercises are not static, but rather, make regular adjustments to the risk profile of the insured book as market conditions or loan performance is anticipated to change. FHA should have the flexibility to enter into such arrangements, particularly with private mortgage insurance companies.

The FHFA has embarked on a number of credit risk-transfer structures with both GSEs and private investors to contract their balance sheets. As a way of both reducing the risk of the MMIF and initiating experience with such structures, FHA should begin to test a variety of credit risk-transfer structures with qualified counterparties. These qualified counterparties should, at a minimum, meet the same capital, reserve, and leverage ratios imposed on private mortgage insurers to ensure that such transactions have adequate support for the obligation.

Reduce the FHA's Guarantee below Its Current 100 Percent Level

Congress should reduce the FHA's guarantee below its current 100 percent level. An essential feature of mortgage insurance that is lacking in the FHA is the concept of coinsurance on the part of all parties to the transaction. For private mortgage insurance, coinsurance means that the private mortgage insurance stands in the first position of loss behind the borrower's equity and is generally 25–35 percent of the loan amount, which covers most (but not necessarily all) of the losses that the parties to the transaction experience. This serves as an important incentive to avoid foreclosure. FHA, on the other hand, insures 100 percent of the loan amount if the loan goes into foreclosure so that the loan originator lacks any meaningful risk of loss. As a result, the FHA guarantee does not properly align incentives between all parties and the FHA. Reducing 100 percent coverage will incent investors to require servicers to exhaust all viable loss mitigation options to keep the borrower in their home before resorting to foreclosure, and even conduct more prudent underwriting when originating a loan.

Qualified Mortgage Rule Harmonization

FHA makes the rules and guidelines for determining the eligible credit characteristics for consumers obtaining FHA mortgages. These rules and guidelines have been historically more liberal than those prescribed for conventional mortgages. Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, passed in July 2011, CFPB was to construct the guidelines so that mortgages met the statutory "Ability to Repay" requirements. The CFPB did publish the Ability to Repay rules for conventional mortgages, but left to the discretion of the FHA the ability for them to write their own definition – which the FHA did. The conventional guidelines to meet the Ability to Repay rules create a mostly rigid qualifying ratio for consumers in that (generally speaking) the consumer's debt to income should not exceed 43 percent (note that the GSEs have an exemption for the first seven years of their conservatorship). The FHA published a similar standard – except that it allowed for discretion by the lender to use "compensating factors" in determining if a consumer should be authorized to exceed the ratio. This is a key issue because loans meeting the definition of the Ability to Repay requirements are

granted a “safe harbor” limiting their extended liability. If the FHA definition of Ability to Repay is more liberal than conventional loans, lenders are likely to direct more loans to the more broad and/or liberal definition (provided by FHA) in order to reduce their liability.

This is a key issue in the comparison of FHA mortgages to conventional mortgages. Not only do lenders generally have to stay within the prescribed 43 percent ratio on conventional loans, but on mortgages with less than 20 percent down payment, lenders also have to ensure that the loan meets the private mortgage insurance standards of review for sustainability and documentation.

Furthermore, the actuarial report also reveals that FHA relies on a statistically-based automated underwriting scorecard, known as TOTAL, for approving all of its loans. Before and during the crisis, these models were oftentimes overused and, as has been proven, did not hold up well in accurately assessing risk when economic times changed. Old-fashioned underwriting can never be replaced by statistical models, and yet we find the agency relying on them more than the conventional market.

My recommendation is to avoid this type of forum shopping and require a single qualified mortgage standard that is applicable to both the conventional and government-insured market. This means that a single, qualified mortgage rule should permit loans that exceed the 43 percent debt-to-income ratio if the borrower has compensating factors (as the guidelines are defined by the FHA and/or as is in place in the GSEs underwriting requirements). For FHA loans that exceed the 43 percent debt-to-income standards, the loans should be manually underwritten by the FHA (e.g., the FHA Home Ownership Centers) rather than by lenders.

Tethered Analytics

FHA and the GSEs use different numbers when calculating key metrics in their respective risk models, which allows them to draw different conclusions about how to price future risk and the fees associated with that insurance. The calculations should be the same in order to avoid incongruous pricing policies between the GSEs and the FHA.

Concluding Remarks

Without question, FHA is an essential part of the housing finance system. While maligned for the current financial challenges of the MMIF, it is important to keep in mind that FHA has served this country well for nearly 80 years. However, the lack of a clearly defined mission for FHA along with potential conflict between its social and financial missions, are major contributing factors to the weakened state of the MMIF today. FHA reform must be undertaken to reduce the role of the federal government in the mortgage market, increase the role of private sector capital, and prevent future taxpayer bailouts. The agency requires a number of major reforms in order to put it on a secure financial footing that will ensure its important legacy for borrowers for the next 80 years.